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8. (Once amended) The method of claim 1 further comprising [the step of]:

despreading the first information signal for the first user with the first

pseudo-noise code within the first codebook.

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10. (Once amended) The method of claim 1 wherein the partitioning the

table of the orthogonal pseudo-noise codes further comprises [the step of]:

partitioning the table into codebooks such that there are 2^n entries, where n

is a whole number.

Remarks

Reexamination and reconsideration of this application, as amended, is requested. Claims 1-11 remain in the application and claims 1, 3, 5, 6, 8, and 10 have been amended. No new claims have been added or canceled.

Applicants believe there is no charge for this response because no new claims have been added.

Allowed Claims

Applicants would also like to gratefully acknowledge the Examiner's indication that claims 2, 4, 7 and 9 would be allowable if the objection as being dependent upon a rejected base claim were overcome. Rather than incorporate the limitations of one of the allowable dependent claims into the independent claims, Applicants have provided comments that demonstrate that all of the pending claims are allowable over the art of record.

Support for Amendments

As indicated above, claims 1, 3, 5, 6, 8, and 10 have been amended. As shown above, the amendments only involve the removal of unnecessary language from the claims. To be clear, this amendment is not in response to any of the cited patents. Rather, Applicants believe that claims 1-11 are now broader.

Applicants respectfully submit that no new matter has been added.

Response to the 35 U.S.C. §103(a) Rejection

The Office Action rejects claims 1, 3, 5, 6, 8, and 10-11 under 35 U.S.C. §103(a) as being unpatentable over Crespo et al. (US 5,173,923) in view of Gudmundson (US 5,295,153). Applicants respectfully traverse this rejection in view of the remarks that follow.

1) THE PROPOSED MODIFICATION OF GUDMUNDSON WOULD RENDER THE STRUCTURE OF CRESPO ET AL. UNSATISFACTORY FOR ITS INTENDED PURPOSE

As discussed in M.P.E.P. §2143.01, if a proposed modification would render the device shown in the cited patent being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The Office Action indicated that the system shown in Crespo et al. could be modified as disclosed by Gudmundson "to assign each transmitter a set of PN sequences so that the capacity of the transmitted signal is increased." Without conceding that such a benefit could be obtained, Applicants respectfully submit that the combination of Crespo et al. and Gudmundson cannot make Applicants'

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claimed invention obvious because the teachings of Gudmundson would render the system taught in Crespo et al. unsatisfactory for its intended purpose.

Crespo et al. specifically teaches "assigning **a unique code** to each transmitter, and then by utilizing **the unique code** to encode the frequency domain characteristic of a transmitter pulse" (see column 2, lines 4-7, emphasis added). Crespo et al. also discloses at column 4, lines 46-55, the formula that is used to define the code assigned to each source and how that code can be a complex valued PN sequence. Crespo et al. then discloses at column 6, line 9, through column 7, line 33, the mathematics that are used "to prepare the received characteristic for detection within detector 440." This includes multiplying the received characteristic by "frequency characteristic $S(f)$; the conjugate of the pseudo-noise source $PN_i(f)$, i.e., $PN_i^*(f)$; and the conjugate to the channel characteristic $H(f)$" (see column 6, lines 12-16).

Crespo et al. specifically states that a single, unique pseudo-noise code is assigned to each transmitter. Furthermore, all of the figures, formulas, and text of Crespo et al. are limited to a system where the transmitter has a unique code that is used to decode the receive signal. Applicants respectfully submit that the system and mathematics provided by Crespo et al. are tailored and optimized for system that "generates a transmitter pulse which is power limited and which must match to a channel having bandwidth restrictions, additive noise, and frequency transfer response characterized by loss and distortion" (see column 1, lines 61-66).

Crespo et al. does contain any teaching or suggestion of assigning each transmitter (a set of PN sequences) as suggested by the Office Action. Moreover, the combination of Crespo et al. and Gudmundson do not contain any explanation as to how the modification proposed by the Office Action would be accomplished. In particular, the combination does not enable how the mathematics and or the

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system shown in Crespo et al. could be adjusted to make the modification suggested by the Office Action. Only Applicants' specification discloses how to partition a table of orthogonal pseudo-noise codes into at least one codebook having a plurality of pseudo-noise codes or assigning a first codebook to a first user.

Consequently, Applicants respectfully submit that one skilled in the art would not be motivated by Crespo et al. or Gudmundson to make the modification suggested by the Office Action because such a modification is contrary to the explicit teachings of Crespo et al. Since Crespo et al. specifically discloses assigning a unique pseudo-noise code to a transmitter, the modification proposed by the Office Action would render the system disclosed by Crespo et al. unsatisfactory for its intended purpose.

Accordingly, Applicants respectfully submit that the combination proposed by the Office Action is improper and that the combination cannot make Applicants' claim 1 obvious. Since claims 3, 5, 6, 8, 10, and 11 depend from claim 1, they are not obvious for at least the same reason.

Additional arguments to distinguish the cited patents from claims 1, 3, 5, 6, 8, 10, and 11, could have been made, but it is believed that the foregoing discussion is sufficient to overcome the Examiner's rejection.
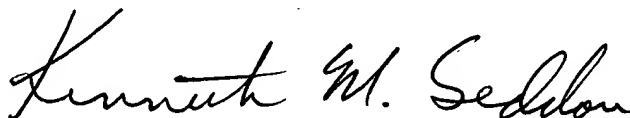
Conclusion

The foregoing is submitted as a full and complete response to the Office Action mailed February 23, 2000, and it is submitted that claims 1-11 are in condition for allowance. Reconsideration of the rejection is requested. Allowance of claims 1, 3, 5, 6, 8, 10 and 11 in addition to claims 2, 4, 7, and 9, which have already been allowed, is earnestly solicited.

Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666.

If the Examiner believes that there are any informalities which can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 554-9732 is respectfully solicited.

Respectfully submitted,

David Horne

Kenneth M. Seddon
Patent Attorney
Reg. No. 43,105

Dated:

c/o Blakely, Sokoloff, Taylor & Zafman, LLP
12400 Wilshire Blvd., Seventh Floor
Los Angeles, CA 90025-1026
(503) 264-0967

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